

CANADA

TITLE OF THE SUCCESSFUL EXPERIENCE:

NATIONAL RESEARCH COUNCIL OF CANADA INDUSTRIAL RESEARCH ASSISTANCE PROGRAM (NRC-IRAP)

GENERAL INFORMATION

Country: Canada

Coordinating Institution: National Research Council of Canada

Other institutions involved: nil

Duration of the experience: 1962 - present

Webpage: http://www.nrc-cnrc.gc.ca/eng/irap/index.html

Social networks: twitter.com/NRC_CNRC, www.linkedin.com/company/national-research-council

Area of the successful experience:

- Technical-related advisory services for R&D projects
- Business advisory services to support SME holistic company needs
- Funding for specific R&D related project activity

Official logo of the successful experience: nil

DETAILED INFORMATION

1) Description

The National Research Council-Industrial Research Assistance Program (NRC-IRAP) is an innovation assistance program for growth oriented small- and medium-sized enterprises (SMEs). The program has a presence in 120 locations across Canada's10 provinces. NRC-IRAP provides technology support as well as funding to help accelerate growth in firms so they may become globally competitive. In addition to direct services and funding, NRC-IRAP brings together a diverse network of organizations, services and programs that provide innovative SMEs with services that are complementary to NRC-IRAP own programming. In 2014-15, NRC-IRAP supported over 16,000 SMEs; more than 10,000 firms benefitted from expert advisory services, 3578 used the Concierge Service, and more than 2,500 firms received some form of financial assistance.



NRC-IRAP provides funding to projects that demonstrate technological uncertainty and have the potential to increase the company's revenue by commercializing the results of the project. NRC-IRAP uses a systematic due diligence process that assesses and reviews both the firm's business capacity as well as the individual technical project.

The program is delivered through a network of Industrial Technology Advisors (ITAs) working in the field directly with SMEs. NRC-IRAP's 250 ITAs play a central role in delivering technical and business advisory services to clients at no charge. ITAs form one-on-one, trusted long term relationships with companies. The ITA component of the program is widely regarded as a "best practice" that sets the program apart from others in terms of impact and effectiveness.

2) Beneficiaries

- Recipients must be incorporated and for-profit
- Recipients are from all technology sectors
- Recipients are from all locations throughout Canada
- Recipients employ (or have) 500 employees or less full-time equivelents
- Recipients must be ready to enhance their innovation capacity, and be willing to establish a trusting relationship with NRC-IRAP

3) Implementation of the experience

NRC-IRAP engages with SMEs through a network of 250 Industrial Technology Advisors (ITAs). The ITAs are close to their client base and are often located in technology parks, innovation support organization, incubators, universities, and colleges across the country. These individuals typically join NRC-IRAP after they have achieved extensive private sector experience as senior managers or/and entrepreneurs in SMEs. The sectoral experience of ITAs is typically matched with the needs of the regional clients. Although ITAs are located throughout Canada, all clients have access to the collective wisdom and expertise of the ITA community. The ITA-client relationship is widely regarded as the fundamental element that sets NRC-IRAP apart from other federal and provincial government programs.

To obtain funding from NRC-IRAP, firms are invited by their ITA to submit project proposals that outline the business opportunity as well as the proposed innovation project to develop the intended service, product or process. The depth of the assessment process is commensurate with the maturity of the firm, the complexity of the project, the amount of the IRAP contribution requested and the "co-investment" by the company and its other partners.



ITAs are widely regarded as the key value-added feature of NRC-IRAP. In view of the growing recognition that growth constraints lie more in the realm of managerial skills and capabilities, the extensive discussions held between the ITA and the client enable the ITA to assess both the managerial and technical needs of the SME. ITA-client relationships are labour intensive by design – however, it is through this relationship that the opportunity for significant impact is created and realized.

Typically ITAs join NRC-IRAP after having completed a career with extensive professional experience. ITAs are currently located in centers where the demand for their services is the greatest. The location and number of ITAs is constantly being re-evaluated to ensure the appropriate skill sets are available to meet the demands of the market. Typically, ITAs have a local office, but they also travel extensively (for some, 80% of their time) to meet with the clients at their site and bring them the necessary support and resources.

4) Accomplishments and Results

An evaluation of NRC-IRAP was undertaken in 2011 to gage ongoing program performance in light of the additional demands placed on the program in recent years.

Overall, the program activities and outputs are linked to the achievement of expected client outcomes. The evaluation found that the majority of NRC-IRAP clients have increased their innovation capacity (e.g., skills, knowledge, and personnel) through the guidance of the ITAs, the financial support provided by the program, or the services provided by the funded organizations. All three program components appear to complement one another in pursuit of client success. The evaluation also found that NRC-IRAP has been successful in assisting recipient SMEs to use their increased innovation capacity to generate greater productivity and revenues through the development of new products, processes and technologies. In terms of broader outcomes, the program can be credited with significant extrapolated labour force outcomes, including direct employment impacts (in the 6,900 to 10,700 range overall per year on average, of which approximately 80% are R&D positions) and associated wage/salary impacts.

The overall economic benefits of NRC-IRAP outweigh its costs. The cost-to-benefit ratio of the Program was identified as 1:11.36, and is consistent with the results of previous studies. Furthermore, the partial cost-benefit analysis conducted as part of the evaluation found that estimated annual profits (\$440 million) and SME wages, salaries, and overhead (\$1.1 billion) that subsequently result from NRC-IRAP projects, far outweigh the program's annual expenditures of approximately \$130 million.

http://www.nrc-cnrc.gc.ca/eng/about/planning reporting/evaluation/2012 2013/irap.html



5) Offers of cooperation with the region to exchange good practices

Modalities of Cooperation	Modalities of cooperation offered by the institution to regional partners (mark with an X)
Sharing of information	X
via e-mail	
Teleconferences	X
Videoconferences	X
Workshops	
Mentoring	X
Technical tours and	X
visits of experts	
Others – Please	
describe	

NRC-IRAP international initiatives

NRC-IRAP international initiatives are focused on providing support in a number of key areas, including:

- direct support to small and medium-sized enterprises with international interests,
- technology partnering, including technology sourcing, transfer, and matching,
- joint research and development projects, and other technology ventures

NRC-IRAP works with Canadian organizations and other government departments such as <u>Global Affairs Canada</u> (GAC) to collaborate on international activities and programs designed to help assist firms in Canada to compete in the global marketplace.

In addition, NRC-IRAP has a number of formal and informal relationships in countries including Spain, France, the United States of America, Ireland, India, China, the Scandinavian countries, the Netherlands and the European Union. NRC-IRAP collaborates with these countries on a reciprocal basis to further support small and medium-sized enterprise growth, technology transfer and technology development for the purpose of generating economic benefits for both Canada and the collaborating countries.



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